

Listing of Claims:

Claims 1-173 (Canceled)

174. (New) For use in a game system having a first game apparatus containing a first processor, and a separately housed portable game system containing a second processor and a discrete display device, a method of operating said game system comprising the steps of:
- (a) executing a first game program in said first processor to generate first non-sprite polygon data that represents a shape of at least a portion of a first 3-dimensional player-controlled character moving in a first simulated 3-dimensional game world;
 - (b) mapping texture onto said first polygon data to represent a textured portion of said first player-controlled character for display on a first display device;
 - (c) digitally transferring game data from said first processor through a data transmission link to said second processor;
 - (d) executing a second game program in said second processor in accordance with said transferred game data to generate second non-sprite polygon data that represents a shape of at least a portion of a second 3-dimensional player-controlled character moving in a second simulated 3-dimensional game world; and
 - (e) mapping texture onto said second polygon data in said portable game system to represent a textured portion of said second player-controlled character for display on said discrete display device in said portable game system.

175. (New) The method of claim 174, wherein said discrete display device is a liquid crystal display (LCD) device.
176. (New) The method of claim 174, wherein at least one of said processors cooperates with a graphics coprocessor for converting said textured polygon data to pixels for display.
177. (New) The method of claim 174, further comprising the step of mapping textures onto third non-sprite polygon data to represent an object moving in said second simulated 3-dimensional game world for display on said discrete display device in said portable game system.
178. (New) The method of claim 174, further comprising the steps of:
- (f) generating game control data in said first processor to specify at least one variable of at least one body part of said first player-controlled character;
 - (g) transmitting said game control data from said first processor through said data transmission link to said second processor;
 - (h) executing a third game program in said second processor to generate third texture mapped non-sprite polygon data of said first player-controlled character in accordance with said variable specified in said transmitted game control data; and
 - (i) rendering said third textured polygon data for display on said discrete display device in said portable game system.

179. (New) The method of claim 178, wherein said variable represents at least one from the group comprising: location of an object, direction of movement of an object, velocity of an object, orientation of an object, operation code, size factor, object identifier, character identifier, picture identifier, unit identifier, spatial coordinate, rotation, data to appear on a map, word menu, picture menu, terrain identifier, texture identifier, and polygon identifier.
180. (New) The method of claim 178, further comprising the step of generating fourth non-sprite polygon data that represents said second player-controlled character in a first portion of said second simulated game world and later in a second portion of said second game world in accordance with said variable specified in said transmitted game control data.
181. (New) The method of claim 174, wherein said second processor comprises means for rendering said second polygon data representing body parts of said second player-controlled character.

182. (New) The method of claim 174, further comprising the step of processing data in said first processor representing at least one from the group comprising: words, numbers, symbols, faces, maps, static pictures, and picture menus that is transmitted from said first processor to said second processor to cause generation of picture data for display on said discrete display device.

183. (New) The method of claim 174, further comprising the step of enlarging a portion of an object in said second polygon data so as to display a portion of the object in greater detail on said discrete display device.

184. (New) The method of claim 174, further comprising the steps of:

- (f) displaying a manually controlled indicator on a selected object displayed on said discrete display device; and
- (g) generating third non-sprite polygon data that represents a shape of said selected object moving in said second game world under manual control for display on said discrete display device.

185. (New) The method of claim 174, further comprising the step of generating non-sprite polygon data that represents a shape of at least a portion of said first player-controlled character in said second simulated game world in said portable game system in accordance with said transmitted game data.

186. (New) The method of claim 174, wherein said data transmission link comprises wireless transmission.
187. (New) The method of claim 174, wherein at least one of said textures is simplified to a featureless texture.
188. (New) The method of claim 174, wherein said first and second player-controlled characters are substantially the same character.
189. (New) The method of claim 174, wherein said first and second simulated game worlds are substantially the same game world.
190. (New) The method of claim 174, wherein said first game apparatus is a portable game system.
191. (New) The method of claim 174, wherein said first display device is a liquid crystal display (LCD) device.
192. (New) The method of claim 174, further comprising the steps of:
- (f) storing a third game program in said first game apparatus for execution in said second processor; and
 - (g) transmitting said third game program from said first processor through said data transmission link to said second processor for execution in said second processor.

193. (New) The method of claim 174, further comprising the step of transferring game data from said first game apparatus through a data transmission link to cause display of game images on more than one discrete display device.
194. (New) The method of claim 174, further comprising the steps of detecting a predetermined condition and modifying at least a portion of non-sprite polygon data if said predetermined condition is detected.
195. (New) The method of claim 194, wherein said predetermined condition is defined as one of said player-controlled characters contacting an object in one of said game worlds.
196. (New) The method of claim 194, wherein said predetermined condition is defined as one of said player-controlled characters being manually controlled to enter a predetermined area in one of said game worlds.
197. (New) The method of claim 194, wherein said predetermined condition is defined as manual selection of an object in one of said game worlds.

198. (New) The method of claim 194, wherein said predetermined condition is defined as one of said player-controlled characters grasping an object in one of said game worlds.

199. (New) The method of claim 194, wherein said predetermined condition is defined as one of said player-controlled characters moving away from an object in one of said game worlds.

200. (New) The method of claim 194, wherein said predetermined condition is defined as one of said player-controlled characters moving toward an object in one of said game worlds.

201. (New) The method of claim 194, wherein said predetermined condition is defined as the current display size of a body part of one of said characters being smaller than a predetermined amount and said modified polygon data represents an enlarged image of the character's body part.

202. (New): The method of claim 194, wherein said predetermined condition is defined as a manually operated physical object being in contact with a variable location on a touch sensitive surface in said portable game system.

203. (New): The method of claim 202, wherein said manually operated object is a finger of a human operator.
204. (New): The method of claim 194, wherein said predetermined condition is defined as a manually operated physical object moving in contact with a touch sensor in said portable game system.
205. (New): The method of claim 194, wherein said predetermined condition is defined as data entry into said portable game system of at least one from the group comprising: number, letter, symbol, word, cursor, map location, menu selection, highlight, icon selection, drag and drop, and manual operation of a control device.
206. (New): The method of claim 194, wherein said predetermined condition is defined as manual entry of a request for replay of a prior game display sequence for display on said discrete display device.
207. (New): The method of claim 194, wherein said predetermined condition is defined as manual entry of a request for a preview of a possible future game display sequence for display on said discrete display device.

208. (New): The method of claim 194, wherein said predetermined condition is defined as receiving into said portable game system said data transmitted through said data transmission link.
209. (New): The method of claim 194, wherein said predetermined condition is defined as generating of third data that represents a predetermined object for display on said first display device.
210. (New) The method of claim 194, wherein said modified polygon data represents a body part of one of said characters.
211. (New) The method of claim 194, wherein said modified polygon data represents a hand of one of said characters.
212. (New) The method of claim 194, wherein said modified polygon data represents an object in simulated contact with a hand of one of said characters.
213. (New) The method of claim 194, wherein said modified polygon data causes display of a modified body part of one of said characters.

214. (New) The method of claim 174, wherein at least a portion of said transferred game data specifies at least one from the group comprising: operation code, size factor, object identifier, character identifier, picture identifier, unit identifier, spatial coordinate, location, velocity, rotation, direction, orientation, data to appear on a map, word menu, picture menu, terrain identifier, texture identifier, and polygon identifier.
215. (New) The method of claim 174, wherein at least a portion of said transferred game data specifies a variable direction of movement in said second data of at least one body part of said second player-controlled character.
216. (New) The method of claim 174, wherein at least a portion of said transferred game data specifies a variable location in said second data of at least one body part of said second player-controlled character.
217. (New) The method of claim 174, wherein at least a portion of said transferred game data is program instructions for execution in said second processor.
218. (New) The method of claim 174, wherein at least a portion of said transferred game data is polygon data from which said second processor generates texture mapped data for display on said discrete display device.

219. (New) The method of claim 174, wherein at least some body parts of one of said characters are articulated and bendable under control of at least one manually operable control device.
220. (New) The method of claim 174, wherein at least one of said first and second polygon data represents articulated fingers that are controlled by at least one manually operable control device.
221. (New) The method of claim 174, wherein at least one of said first and second polygon data represents at least one from the group comprising: arm, leg, hand, finger, head, face, eye, mouth, claw, shoe, and clothing.
222. (New) The method of claim 174, wherein at least one of said player-controlled characters is humanoid in regards to body shape and body parts.
223. (New) The method of claim 174, wherein at least one of said player-controlled characters is non-humanoid in regards to body shape and body parts.
224. (New) The method of claim 174, wherein at least one of said player-controlled characters is an inanimate object having plural parts.

225. (New) The method of claim 174, further comprising the steps of:
digitally reading said second game program from a data storage device into said video game apparatus; and
digitally transferring said second game program from said video game apparatus to said portable game system for execution in said second processor.
226. (New) The method of claim 174, wherein said first game program is stored on a data storage device and wherein said video game apparatus reads said first game program from the data storage device into said video game apparatus for execution in said first processor.
227. (New) The method of claim 174, wherein said second game program is stored in a program memory cartridge that is manually removable from said portable game system.
228. (New) The method of claim 174, wherein at least one of said game programs is stored on a program/data storage disk that is read by a disk reader controlled by one of said processors.
229. (New) The method of claim 174, wherein manipulation of at least one manually operated control device on said portable game system causes said second processor to generate control data that is transferred to said first processor to control generation of said first data.

230. (New) The method of claim 174, further comprising the steps of generating movement of body parts of said first player-controlled character in response to manual operation of a first control device; and generating movement of body parts of said second player-controlled character in response to manual operation of a second control device.
231. (New) The method of claim 230, wherein said first and second control devices are housed in the same handheld controller.
232. (New) The method of claim 230, wherein said first and second control devices are housed in said portable game system.
233. (New) The method of claim 174, wherein at least one touch sensitive data entry device in said portable game system generates control data to control motion of at least one of said player-controlled characters.
234. (New) The method of claim 174, wherein at least one touch sensitive data entry device senses locations on said discrete display device of a physical object touching said data entry device.

235. (New) The method of claim 174, further comprising the step of generating data representing plural body parts of one of said characters moving from said first simulated game world to said second simulated game world.
236. (New) The method of claim 174, further comprising the step of generating data representing plural body parts of one of said characters moving from said second simulated game world to said first simulated game world.
237. (New) The method of claim 174, wherein said data transmission link is bi-directional.
238. (New) The method of claim 174, wherein said first and second game programs are stored in a data carrier.

239. (New) A data carrier for use in a first game apparatus containing a first processor that is digitally linked to a separately housed portable game system containing a second processor and a discrete display device, the data carrier carrying game program instructions and data comprising:
- (a) first program instructions that cause said first processor to generate first non-sprite polygon data that represents a shape of at least a portion of a first 3-dimensional player-controlled character moving in a first simulated 3-dimensional game world, the first polygon data being texture mapped so that the texture represents a displayable portion of said first character for display on a first display device;
 - (b) second program instructions that cause said first processor to transfer game data through a data transmission link to said second processor to cause said second processor to generate second non-sprite polygon data that represents a shape of at least a portion of a second 3-dimensional player-controlled character moving in a second simulated 3-dimensional game world; and
 - (c) said second processor further mapping texture onto said second polygon data so that the texture represents a displayable portion of said second player-controlled character for display on said discrete display device in said portable game system.

240. (New) The data carrier of claim 239, wherein said data carrier is a disk on which programs and data are stored.
241. (New) The data carrier of claim 239, wherein said data carrier is a semiconductor data storage memory.
242. (New) The data carrier of claim 239, wherein said data carrier is an optically coded disk.
243. (New) The data carrier of claim 239, wherein said first processor comprises a central processor and a graphics co-processor.
244. (New) The data carrier of claim 239, wherein said second processor comprises a central processor and a graphics co-processor.
245. (New) The data carrier of claim 239, wherein said first and second player-controlled characters are substantially the same character.
246. (New) The data carrier of claim 239, wherein said first and second simulated game worlds are substantially the same game world.

247. (New) The data carrier of claim 239, wherein said first and second simulated game worlds are different portions of the same game world.
248. (New) The data carrier of claim 239, wherein at least a portion of said transferred game data specifies at least one from the group comprising: operation code, size factor, object identifier, character identifier, picture identifier, unit identifier, location, velocity, rotation, direction, orientation, spatial coordinates, data to be displayed on a map, word menu, picture menu, terrain identifier, texture identifier, and polygon identifier.
249. (New) The data carrier of claim 239, wherein at least one of said displayable portions comprise at least one from the group comprising: arm, leg, hand, finger, head, face, eye, mouth, claw, shoe, clothing, and tool.
250. (New) The data carrier of claim 239, further comprising program instructions that are downloaded from said first game apparatus through a data transmission link to said portable game system and executed in said second processor in said portable game system.

251. (New) The data carrier of claim 239, further comprising graphics data that is downloaded from said first game apparatus through a data transmission link to said portable game system and processed in said second processor in said portable game system.

252. (New) The data carrier of claim 239, wherein said data transmission link comprises wireless transmission.

253. (New) A game system comprising:

- (a) a first game apparatus having a first processor for executing a first game program to generate first non-sprite polygon data that represents a shape of at least a portion of a first 3-dimensional player-controlled character moving in a first simulated 3-dimensional game world;
- (b) means in said first game apparatus for mapping texture onto said first polygon data to represent a textured portion of said first player-controlled character for display on a first display device;
- (c) a data transmission link for transferring game data from said first processor to a second processor in a separately housed portable game system;
- (d) said second processor in said portable game system for executing a second game program in accordance with said transferred game data to generate second non-sprite polygon data that represents a shape of at least a portion of a second 3-dimensional player-controlled character moving in a second simulated 3-dimensional game world; and
- (e) means in said portable game system for mapping texture onto said second polygon data to represent a textured portion of said second player-controlled character for display on a discrete display device in said portable game system.

254. (New) The game system of claim 253, further comprising a first manually operated control device for controlling movement of said first player character, and a second manually operated control device for controlling movement of said second player character.
255. (New) The game system of claim 254, wherein said first and second control devices are housed in the same controller.
256. (New) The game system of claim 254, wherein said first and second control devices are housed in said portable game system.
257. (New) The game system of claim 253, wherein said first and second player-controlled characters are substantially the same character.
258. (New) The game system of claim 253, wherein at least one of said first and second polygon data represents articulated fingers that are controlled by at least one manually operable control device.
259. (New) The game system of claim 253, further comprising at least one graphics coprocessor for converting at least one of said textured portions to pixels for display.

260. (New) The game system of claim 253, wherein said discrete display device is a liquid crystal display (LCD) device.
261. (New) The game system of claim 253, wherein said discrete display device displays a map of at least a portion of one of said game worlds.
262. (New) The game system of claim 253, further comprising at least one touch sensitive data entry device.
263. (New) The game system of claim 253, further comprising at least one touch sensitive data entry device that senses locations on said discrete display device of a physical object touching said data entry device, and said second processor modifies said second polygon data in accordance with movement of said touching object so that said discrete display device displays a textured portion of said second character that moves in a direction indicated by said movement of said touching object.
264. (New) The game system of claim 253, further comprising a manually operable control device for controlling enlargement and reduction of a selected area of one of said game worlds for display on said discrete display device.
265. (New) The game system of claim 253, further comprising a plurality of said portable game systems, each receiving game data transferred from said first game apparatus.

266. (New) The game system of claim 253, wherein said first game program is stored on a program/data storage disk and wherein said first game apparatus further comprises a disk reader for reading said first game program from the storage disk.
267. (New) The game system of claim 253, wherein at least a portion of said second game program is stored on a program/data storage disk and wherein said first game apparatus reads said portion of said second game program from the storage disk and transfers the second game program portion to said portable game system for execution in said second processor.
268. (New) The game system of claim 253, wherein said first game apparatus is a portable game system.
269. (New) The game system of claim 253, wherein said first display device is a discrete display device.
270. (New) The game system of claim 253, wherein said data transmission link comprises wireless transmission.
271. (New) The game system of claim 253, wherein at least one of said textures is simplified to a featureless texture.

272. (New) For use in a game system having a first game apparatus containing a first processor, and a separately housed portable game system containing a second processor and a discrete display device, a method of operating said game system comprising the steps of:

- (a) executing a first game program in said first processor to generate first renderable polygon vertex data that represents a shape of at least a portion of a first 3-dimensional player-controlled character moving in a first simulated 3-dimensional game world;
- (b) digitally rendering said first polygon vertex data to compute displayable first pixels that represent at least a portion of said first player-controlled character for display of said first pixels on a first display device;
- (c) digitally transferring game data from said first processor through a data transmission link to said second processor;
- (d) executing a second game program in said second processor in accordance with said transferred game data to generate second renderable polygon vertex data that represents a shape of at least a portion of a second 3-dimensional player-controlled character moving in a second simulated 3-dimensional game world; and
- (e) digitally rendering said second polygon vertex data to compute displayable second pixels that represent at least a portion of said second player-controlled character for display of said second pixels on said discrete display device in said portable game system.

273. (New) The method of claim 272, wherein said first processor cooperates with a graphics coprocessor for rendering said first polygon vertex data.
274. (New) The method of claim 272, wherein said second processor cooperates with a graphics coprocessor for rendering said second polygon vertex data.
275. (New) The method of claim 272, wherein said data transmission link comprises wireless transmission.
276. (New) The method of claim 272, wherein at least one of said displayable portions of said second player-controlled character is simplified to a featureless texture.
277. (New) The method of claim 272, wherein said first and second player-controlled characters are substantially the same character.
278. (New) The method of claim 272, wherein said first and second simulated game worlds are substantially the same game world.
279. (New) The method of claim 272, wherein said first game apparatus is a portable game system.
280. (New) The method of claim 272, wherein said first display device is a liquid crystal display (LCD) device.

281. (New) The method of claim 272, further comprising the steps of:

- (f) storing a third game program in said first game apparatus for execution in said second processor; and
- (g) transmitting said third game program from said first processor through said data transmission link to said second processor for execution in said second processor.

282. (New) The method of claim 272, further comprising the step of transferring game data from said first game apparatus through a data transmission link to cause display of game images on more than one discrete display device.

283. (New) The method of claim 272, further comprising the steps of detecting a predetermined condition and modifying at least one of said polygon vertex data if said predetermined condition is detected.

284. (New) The method of claim 283, wherein said predetermined condition is defined as one of said player-controlled characters grasping an object in one of said game worlds.

285. (New) The method of claim 283, wherein said predetermined condition is defined as one of said player-controlled characters contacting an object in one of said game worlds.

286. (New) The method of claim 283, wherein said predetermined condition is defined as a manually operated physical object being in contact with a variable location on a touch sensitive surface in said portable game system.
287. (New) The method of claim 286, wherein said manually operated object is a finger of a human operator.
288. (New) The method of claim 272, wherein at least one of said first and second game programs are stored in a data carrier.
289. (New) The method of claim 272, wherein a touch sensitive data entry device in said portable game system senses locations on said discrete display device of a manually controlled physical object touching said data entry device.
290. (New) The method of claim 272, wherein at least one of said player-controlled characters is controlled by a combination of manual operation of a second control device in said portable game system and a touch sensor in said portable game system sensing locations on said discrete display device of a manually controlled physical object touching said touch sensor.

291. (New) For use in a game system having a first game apparatus containing a first processor, and a separately housed portable game system containing a second processor and a discrete display device, a method of operating said game system comprising the steps of:

- (a) executing a first game program in said first processor to generate first renderable polygon vertex data that represents body parts of a first 3-dimensional player-controlled character moving in a first simulated 3-dimensional game world;
- (b) digitally rendering said first polygon vertex data to compute displayable first pixels that represent at least one body part of said first player-controlled character for display of said first pixels on a first display device;
- (c) digitally transferring game data from said first processor through a data transmission link to said second processor;
- (d) executing a second game program in said second processor in accordance with said transferred game data to generate second renderable polygon vertex data that represents body parts of a second 3-dimensional player-controlled character moving in a second simulated 3-dimensional game world; and
- (e) digitally rendering said second polygon vertex data to compute displayable second pixels that represent at least one body part of said second player-controlled character for display of said second pixels on said discrete display device in said portable game system.

292. (New) The method of claim 291, wherein said portable game system further comprises at least one touch sensor that senses locations on said discrete display device of a physical object touching said touch sensor.
293. (New) The method of claim 292, further comprising the steps of:
- (f) modifying said second polygon vertex data in said second processor in accordance with movement of said touching object; and
 - (g) texture mapping said modified polygon vertex data so that a textured portion of said second character moves in a direction indicated by said movement of said touching object for display on said discrete display device.
294. (New) The method of claim 292, further comprising the steps of:
- (f) modifying said second polygon vertex data in said second processor in accordance with movement of said touching object; and
 - (g) texture mapping said modified polygon vertex data so that a textured portion of said second character moves toward a location indicated by said movement of said touching object for display on said discrete display device.
295. (New) The method of claim 292, further comprising the step of: modifying said second polygon vertex data in said second processor in accordance with movement of said touching object so as to change the shape of at least a portion of said second character.

296. (New) The method of claim 292, further comprising the step of: modifying said second polygon vertex data in said second processor in accordance with movement of said touching object so that a textured portion of said second character is displayed on said discrete display device moving together with said movement of said touching object.

297. (New) The method of claim 292, further comprising the steps of:

- (f) displaying a plurality of objects at predetermined locations on said discrete display device; and
- (g) sensing the location of one of said objects in accordance with a selected location of said touching object; and
- (h) storing input data corresponding to said selected location.

298. (New) The method of claim 292, wherein said objects comprise at least one from the group comprising: numbers, letters, pictures, menu items, map locations, body parts, icons, weapons, and locations in one of said simulated worlds.

299. (New) The method of claim 292, wherein at least one of said processors cooperates with a graphics coprocessor for performing one of said rendering steps.